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EXAMINER	
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ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/552,484	KYUNG ET AL.	
	Examiner	Art Unit	
	ARIEL BALAOING	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-13,19-47 and 50-86* is/are pending in the application.

4a) Of the above claim(s) *59-78 and 81-86* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-13,19-47,50-58,79 and 80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/27/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 04/27/2009 have been fully considered but they are not persuasive.

Regarding claim 5 (amended into claim 1), the applicant argues:

"with respect to claim 5, page 16 of the Office Action states that Panchal and Jang (col. 3, line 25-40) combined with Padovani (Figure 8B) discloses 'the specific header has a value that does not coincide with previous public long code masks and does not coincide with previous long code masks.' Additionally, the Office Action states that 'Panchal shows group identification that does not coincide with previous code masks, while Padovani shows the use of a header within a public long code mask.' However, it is respectfully noted that the group identification, which may correspond to either 'the group specific dispatch identifier' or 'the dispatch call request including that identifier,' of Panchal identifies the target dispatch group. The target dispatch group of Panchal corresponds to a group of users within the dispatch group. Additionally, considering the structure of 'the dispatch identifier,' as shown in FIG. 2, 'the group identification' of Panchal fails to teach or suggest the concept of a value that does not coincide with previous public long code masks and does not coincide with previous long code masks.

Thus although Padovani arguably discloses a 'header within a public long code mask,' Panchal combined with Padovani does not teach or suggest allocating 'a specific header having a value that does not coincide with previous public long code masks and

does not coincide with previous long code masks' to upper bits of the public long code mask. Furthermore 'the specific header' of claim 1 has a value which does not coincide with previous public long code masks, and also does not coincide with previous long code masks. Therefore, Padovani does not cure the deficiencies of Panchal with respect to allocating 'a specific header having a value that does not coincide with previous public long code masks and does not coincide with previous long code masks' to upper bits of the public long code mask, as recited in claim 1" (see page 17 of the remarks); the examiner respectfully disagrees.

Since the public long code mask of Padovani indicates a specific group identifier (i.e. specific BCMC identifier), each group would provide a different and unique id and therefore would not coincide with another group identifier. Therefore, Padovani disclose the limitation as claimed. Furthermore as can be seen from claim 13, public long code mask is shared by all mobile terminals within a group.

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-3, 6-13, 19-47, 52-58, 79, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over PANCHAL et al (US 6,519,239) in view of JANG et al (US 2005/0025082 A1) and further in view of 3GPP2 "Upper Layer (Layer 3) Signaling for

cdma2000 Spread Spectrum Systems" 3GPP2 C.S0005-d version 1.0 (see IDS submission 04/27/2009, hereinafter 3GPP).

Regarding claim 1, PANCHAL discloses a method of carrying out a broadcast/multicast service provided via a channel of a mobile communication system **100** (abstract; dispatch group service is considered a broadcast/multicast service), the method comprising steps of: receiving a identifier **[dispatch identifier]** indicative of the broadcast/multicast service (Figure 2, 3; abstract; col. 2, line 8-18; identifier received at mobile station); and generating, based on the received flow identifier, a long code mask for the channel providing the broadcast/multicast service, by allocating a predetermined length of bits of the public long code mask as a specific header having a value that does not coincide with previous public long code masks and does not coincide with previous long code mask (Figure 2, 3; abstract; col. 2, line 8-18; generations of a long code mask using identifier and a first long code mask. Furthermore code masks must be unique based on either dedicated or group channel assignment). However, PANCHAL does not expressly disclose wherein the identifier is a flow identifier, and wherein the long code mask is a public long code mask. In a similar field of endeavor, JANG teaches wherein an identifier is a flow identifier used to identify a broadcast/multicast service, and wherein a long code mask is a public long code mask used to provide a broadcast/multicast service (paragraph 71, and 72). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify PANCHAL to include the teachings of JANG, since the use of flow identifiers and public long code masks is well known and standardized in the CDMA art (specifically in

CDMA2000/WCDMA) and provides identification of a broadcast/multicast group and further provides channel assignment in a shared channel environment. However, the combination of PANCHAL and JANG does not expressly disclose allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated. In the same field of endeavor, 3GPP discloses allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated (page 2-10, lines 6-18; page 2-669, lines 8-23; flow identifier is provide in the LSB). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of PANCHAL and JANG to include the teachings of 3GPP, since specific allocations of a public long code mask and flow identifier within most significant bits and least significant bits using standardized protocol would allow a system to function within known specifications.

Regarding claim 2, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the channel for the broadcast/multicast service is a shared channel (PANCHAL – figure 1; col. 5, line 23-34; only one communication unit is broadcast suggest a shared channel; JANG – paragraph 72; paragraph 11, 80; shared supplemental channel).

Regarding claim 3, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the shared channel is one of a forward broadcasting fundamental channel and a forward broadcasting supplemental channel (JANG – paragraph 72; paragraph 11, 80; shared F-SCH).

Regarding claim 6, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. Although the combination of PANCHAL, JANG, and 3GPP disclose the use of a 10 bit header, the combination of PANCHAL, JANG, and 3GPP does not expressly disclose wherein the value of the specific header is set to one of "1100010000" and "1100010001." It would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 7, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. Although the combination of PANCHAL, JANG, and 3GPP disclose the use of a 10 bit header, the combination of PANCHAL, JANG, and 3GPP does not expressly disclose wherein the value of the specific header is "1100010000" when the channel is a forward broadcasting fundamental channel. It would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not

disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 8, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. Although the combination of PANCHAL, JANG, and 3GPP disclose the use of a 10 bit header, the combination of PANCHAL, JANG, and 3GPP does not expressly disclose wherein the value of the specific header is "1100010001" when the channel is a forward broadcasting supplementary channel. It would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 9, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the generated public long code mask has a length of 42 bits (JANG - PLCM definition Table on page 2; 3GPP – page 2-10, lines 3-8).

Regarding claim 10, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the specific header has a length of ten bits (3GPP – page 2-10, lines 3-17).

Regarding claim 11, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the flow identifier has a length selected from the group consisting of 16 bits, 24 bits, and 32 bits (3GPP - page 2-670, line 8).

Regarding claim 12, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein if the length of the flow identifier is not 32 bits, the public long code mask is padded to fill remaining bits (3GPP - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 13, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the public long code mask is shared by all mobile terminals provided with the broadcast/multicast service (JANG – paragraph 72).

Regarding claim 19, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein if the length of the flow identifier is not 32 bits, the public long code mask is padded to fill a remainder of the 42 bits, the remainder excluding the specific header allocation and the predetermined length occupied by the flow identifier (3GPP - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 20, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP

further discloses wherein the padded bits are all lower-order bits (3GPP - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 21, PANCHAL discloses a method of providing a broadcast/multicast service provided in a mobile communication system (abstract), the method comprising steps of: assigning a forward channel to a broadcast/multicast service (Figure 2, 3; abstract; col. 2, line 8-18; long code mask used for channel assignment); generating a identifier of the broadcast/multicast service (Figure 2, 3; abstract; col. 2, line 8-18; dispatch service includes identifier transmitted to mobile station); and generating, based on the generated identifier, a long code mask for the assigned forward channel by allocating a predetermined length of bits of the public long code mask as a specific header having a value that does not coincide with previous public long code masks and does not coincide with previous long code mask (Figure 2, 3; abstract; col. 2, line 8-18; generations of a long code mask using identifier and a first long code mask). However, PANCHAL does not expressly disclose wherein the identifier is a flow identifier, and wherein the long code mask is a public long code mask. In a similar field of endeavor, JANG teaches wherein an identifier is a flow identifier used to identify a broadcast/multicast service, and wherein a long code mask is a public long code mask used to provide a broadcast/multicast service (paragraph 71, and 72). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify PANCHAL to include the teachings of JANG, since the use of flow identifiers and public long code masks is well known and standardized in the CDMA art (specifically in CDMA2000/WCDMA) and provides identification of a

broadcast/multicast group and further provides channel assignment in a shared channel environment. However, the combination of PANCHAL and JANG does not expressly disclose allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated. In the same field of endeavor, 3GPP discloses allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated (page 2-10, lines 6-18; page 2-669, lines 8-23; flow identifier is provide in the LSB). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of PANCHAL and JANG to include the teachings of 3GPP, since specific allocations of a public long code mask and flow identifier within most significant bits and least significant bits using standardized protocol would allow a system to function within known specifications.

Regarding claim 22, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses further comprising a step of providing the generated flow identifier to each of a plurality of mobile terminals (JANG – paragraph 71, 72).

Regarding claim 23, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein said flow identifier providing step is carried out prior to said

forward channel assigning step (JANG – paragraph 72; F-SCH; 3GPP - page 2-669, lines 8-23).

Regarding claim 24, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the generated public long code mask is shared by a plurality of mobile terminals among a service group to be provided with the broadcast/multicast service (JANG – paragraph 71, 72).

Regarding claim 25, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the forward channel is shared by a plurality of mobile terminals among a service group to be provided with the broadcast/multicast service (JANG – paragraph 71, 72).

Regarding claim 26, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the shared forward channel is one of a forward broadcasting fundamental channel and a forward broadcasting supplemental channel (JANG – paragraph 72; supplemental channel).

Regarding claim 27, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the generated public long code mask has a length of 42 bits (3GPP – page 2-10, lines 6-11).

Regarding claim 28, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. Although the combination of PANCHAL, JANG, and 3GPP disclose the use of a 10 bit header, the combination of PANCHAL, JANG, and 3GPP does not expressly disclose wherein the value of the specific header is set to one of "1100010000" and "1100010001." It would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 29, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. Although the combination of PANCHAL, JANG, and 3GPP disclose the use of a 10 bit header, the combination of PANCHAL, JANG, and 3GPP does not expressly disclose wherein the value of the specific header is "1100010000" when the channel is a forward broadcasting fundamental channel. It would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 30, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. Although the combination of PANCHAL, JANG,

and 3GPP disclose the use of a 10 bit header, the combination of PANCHAL, JANG, and 3GPP does not expressly disclose wherein the value of the specific header is "1100010001" when the channel is a forward broadcasting supplementary channel. It would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 31, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the flow identifier has a length selected from the group consisting of 16 bits, 24 bits, and 32 bits (3GPP – 3GPP 2-670, line 8).

Regarding claim 32, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and PADOVANI further discloses wherein the flow identifier for the broadcast/multicast service occupies a BCMC_FLOW_ID field (JANG –paragraph 44, 45).

Regarding claim 33, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein if the length of the flow identifier is not 32 bits, the public long code mask is padded to fill a remainder of the 42 bits, the remainder excluding the specific header allocation and the predetermined length occupied by the flow identifier (3GPP - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 34, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the padded bits are all lower-order bits (3GPP - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 35, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. PANCHAL further discloses multiplexing the generated long code mask with a transmission signal (abstract; Figure 3; encoding of long code mask into signal); and transmitting the multiplexed signal (Figure 2, 3; abstract; col. 2, line 8-18; encode onto transmitted voice information).

Regarding claim 36, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the flow identifier is assigned to the broadcast/multicast service prior to providing the broadcast/multicast service (PANCHAL - col. 2, line 8-18; identifier used to identify a dispatch service and therefore would be assigned before providing the service; JANG – paragraph 71, 72; flow identifier is used for providing channel allocation and therefore would be assigned before a service can begin).

Regarding claim 37, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. PANCHAL further discloses multiplexing the generated long code mask with a received signal (Figure 2, 3; abstract; col. 2, line 8-18; encode onto transmitted voice information); and decoding the multiplexed signal (col. 5, line 13-22; decoding of an encoded signals occurs at a receiving unit).

Regarding claim 38, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the flow identifier is assigned to the broadcast/multicast service prior to providing the broadcast/multicast service (PANCHAL - col. 2, line 8-18; identifier used to identify a dispatch service and therefore would be assigned before providing the service; JANG – paragraph 71, 72; flow identifier is used for providing channel allocation and therefore would be assigned before a service can begin).

Regarding claim 39, PANCHAL discloses a method of simultaneously receiving a plurality of broadcast/multicast services via a forward channel of a mobile communication system (abstract), the method comprising steps of: receiving a plurality of identifiers respectively indicative of the plurality of broadcast/multicast services (col. 3, line 40-67; PANCHEL discloses the use of multiple dispatch groups and selection of group specific identifier); selecting one of the received flow identifiers; and generating, based on the selected flow identifier, a public long code mask for the forward channel by allocating a predetermined length of bits of the public long code mask as a specific header having a value that does not coincide with previous public long code masks and does not coincide with previous long code mask (Figure 1; abstract; col. 2, line 8-18; col. 3, line 40-67; col. 4, line 14-29; multiple channels established by communication units require a selection of different long code masks for distinguishing between channels). However, PANCHAL does not expressly disclose wherein the identifier is a flow identifier, and wherein the long code mask is a public long code mask. In a similar field of endeavor, JANG teaches wherein an identifier is a flow identifier used to identify

a broadcast/multicast service, and wherein a long code mask is a public long code mask used to provide a broadcast/multicast service (paragraph 71, and 72). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify PANCHAL to include the teachings of JANG, since the use of flow identifiers and public long code masks is well known and standardized in the CDMA art (specifically in CDMA2000/WCDMA) and provides identification of a broadcast/multicast group and further provides channel assignment in a shared channel environment. However, the combination of PANCHAL and JANG does not expressly disclose allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated. In the same field of endeavor, 3GPP discloses allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated (page 2-10, lines 6-18; page 2-669, lines 8-23; flow identifier is provide in the LSB). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of PANCHAL and JANG to include the teachings of 3GPP, since specific allocations of a public long code mask and flow identifier within most significant bits and least significant bits using standardized protocol would allow a system to function within known specifications.

Regarding claim 40, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP

further discloses wherein the forward channel is a forward broadcast supplemental channel (paragraph 11, 72, 80; shared supplemental channel).

Regarding claim 41, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the selected flow identifier is a first broadcast/multicast service flow identifier allocated to the forward channel (paragraph 11, 72, 80; identifiers used for channel allocation across a forward and reverse channel).

Regarding 42, PANCHAL discloses a method of receiving a broadcast/multicast service simultaneously via a plurality of forward broadcast supplemental channels of a mobile communication system (abstract), the method comprising steps of: receiving a identifier indicative [**dispatch ID**] of the broadcast/multicast service (Figure 2, 3; abstract; col. 2, line 8-18; identifier received at mobile station); and generating a long code mask, using the received flow identifier and a predetermined portion of a channel identifier [**first long code mask**] for identifying the corresponding forward broadcast supplemental channel by allocating a predetermined length of bits of the public long code mask as a specific header having a value that does not coincide with previous public long code masks and does not coincide with previous long code mask (Figure 2, 3; abstract; col. 2, line 8-18; generations of a long code mask using identifier and a first long code mask). However, PANCHAL does not expressly disclose wherein the identifier is a flow identifier, and wherein the long code mask is a public long code mask. In a similar field of endeavor, JANG teaches wherein an identifier is a flow identifier used to identify a broadcast/multicast service, and wherein a long code mask is a public

long code mask used to provide a broadcast/multicast service (paragraph 71, and 72). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify PANCHAL to include the teachings of JANG, since the use of flow identifiers and public long code masks is well known and standardized in the CDMA art (specifically in CDMA2000/WCDMA) and provides identification of a broadcast/multicast group and further provides channel assignment in a shared channel environment. However, the combination of PANCHAL and JANG does not expressly disclose allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated. In the same field of endeavor, 3GPP discloses allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated (page 2-10, lines 6-18; page 2-669, lines 8-23; flow identifier is provide in the LSB). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of PANCHAL and JANG to include the teachings of 3GPP, since specific allocations of a public long code mask and flow identifier within most significant bits and least significant bits using standardized protocol would allow a system to function within known specifications.

Regarding claim 43, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the generated public long code mask has a length of 42 bits

(JANG - PLCM definition Table on page 2; 3GPP - page 2-10, lines 6-18; 3GPP – page 2-10, lines 6-11).

Regarding claim 44, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the flow identifier has a length of 32 bits (3GPP – page 2-670, line 8).

Regarding claim 45, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the channel identifier includes a maximum of seven bits (3GPP – Figure 2.6.13.11-1). Furthermore, It would have been an obvious matter of design choice to provide a channel identifier of 7 bits or less, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Regarding claim 46, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the predetermined portion is the four least significant bits of the channel identifier (3GPP – Figure 2.6.13.11-1). Furthermore, It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the channel identifier at the four leas significant bits, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claim 47, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the predetermined portion is the three least significant bits of the channel identifier (3GPP – Figure 2.6.13.11-1). Furthermore, It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the channel identifier at the four leas significant bits, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claim 52, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the specific header has a length of seven bits, corresponding to a value (3GPP pages 2-10 – 2-11). Although the combination of PANCHAL, JANG, and 3GPP does not expressly detail selection of a specific value, it would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 53, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein the specific header has a length of seven bits, corresponding to a value (3GPP pages 2-10 – 2-11). Although the combination of PANCHAL, JANG,

and 3GPP does not expressly detail selection of a specific value, it would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 54, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein, if the channel identifier comprises seven bits, the specific header is selected from the group consisting of a value (3GPP pages 2-10 – 2-11). Although the combination of PANCHAL, JANG, and 3GPP does not expressly detail selection of a specific value, it would have been an obvious matter of design choice to use any header number to indicate characteristics of a the public long code mask since the applicant has not disclosed that a specific header used to indicate a characteristic of the public long code mask solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a header of any chosen value.

Regarding claim 55, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein if the flow identifier has a length less than 32 bits, the flow identifier is padded from a most significant bit adjacent the header (3GPP - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 56, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein, if the flow identifier and the header have lengths of 16 bits and 7 bits, respectively, the flow identifier is padded with twelve bits from the most significant bit adjacent the header (3GPP - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 57, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein, if the flow identifier and the header have lengths of 24 bits and 7 bits, respectively, the flow identifier is padded with 4 bits from the most significant bit adjacent the header (3GPP - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 58, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of PANCHAL, JANG, and 3GPP further discloses wherein, if the flow identifier and the header have lengths of 32 bits and 3 bits, respectively, the flow identifier is not padded (3GPP - page 2-670, line 6-8; Figure 2.6.13.11-1).

Regarding claim 79, PANCHAL discloses a mobile terminal comprising: a first module for receiving and storing a identifier for a broadcast/multicast service (Figure 2, 3; abstract; col. 2, line 8-18; identifier received at mobile station); and a second module for generating a long code mask to be used in a channel for the broadcast/multicast service upon providing the broadcast/multicast service using the flow identifier for the broadcast/multicast service, wherein the second module allocates a predetermined length of bits of the public long code mask as a specific header having a value that does

not coincide with the previous public long code masks and does not coincide with previous long code masks (Figure 2, 3; abstract; col. 2, line 8-18; generations of a long code mask using identifier and a first long code mask). However, PANCHAL does not expressly disclose wherein the identifier is a flow identifier, and wherein the long code mask is a public long code mask. In a similar field of endeavor, JANG teaches wherein an identifier is a flow identifier used to identify a broadcast/multicast service, and wherein a long code mask is a public long code mask used to provide a broadcast/multicast service (paragraph 71, and 72). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify PANCHAL to include the teachings of JANG, since the use of flow identifiers and public long code masks is well known and standardized in the CDMA art (specifically in CDMA2000/WCDMA) and provides identification of a broadcast/multicast group and further provides channel assignment in a shared channel environment. However, the combination of PANCHAL and JANG does not expressly disclose allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated. In the same field of endeavor, 3GPP discloses allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated (page 2-10, lines 6-18; page 2-669, lines 8-23; flow identifier is provide in the LSB). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention

was made to modify the combination of PANCHAL and JANG to include the teachings of 3GPP, since specific allocations of a public long code mask and flow identifier within most significant bits and least significant bits using standardized protocol would allow a system to function within known specifications.

Regarding claim 80, PANCHAL discloses a base station comprising: a first module for assigning one forward channel to one broadcast/multicast service, the first module generating a identifier of the broadcast/multicast service (Figure 2, 3; abstract; col. 2, line 8-18; identifier received at mobile station); and a second module for generating a long code mask for the assigned forward channel using the generated flow identifier upon providing the broadcast/multicast service, wherein the second module allocates a predetermined length of bits of the public long code mask as a specific header having a value that does not coincide with the previous public long code masks and does not coincide with previous long code masks (Figure 2, 3; abstract; col. 2, line 8-18; generations of a long code mask using identifier and a first long code mask). However, PANCHAL does not expressly disclose wherein the identifier is a flow identifier, and wherein the long code mask is a public long code mask. In a similar field of endeavor, JANG teaches wherein an identifier is a flow identifier used to identify a broadcast/multicast service, and wherein a long code mask is a public long code mask used to provide a broadcast/multicast service (paragraph 71, and 72). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify PANCHAL to include the teachings of JANG, since the use of flow identifiers and public long code masks is well known and standardized in the CDMA art

(specifically in CDMA2000/WCDMA) and provides identification of a broadcast/multicast group and further provides channel assignment in a shared channel environment. However, the combination of PANCHAL and JANG does not expressly disclose allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated. In the same field of endeavor, 3GPP discloses allocating a predetermined length of upper bits of the public long code mask as a specific header, and allocating the flow identifier to a predetermined length of lower bits of the public long code mask wherein the header is not allocated (page 2-10, lines 6-18; page 2-669, lines 8-23; flow identifier is provide in the LSB). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of PANCHAL and JANG to include the teachings of 3GPP, since specific allocations of a public long code mask and flow identifier within most significant bits and least significant bits using standardized protocol would allow a system to function within known specifications.

5. Claims 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over PANCHAL et al (US 6,519,239) in view of JANG et al (US 2005/0025082 A1) and 3GPP2 "Upper Layer (Layer 3) Signaling for cdma2000 Spread Spectrum Systems" 3GPP2 C.S0005-d version 1.0 (see IDS submission 04/27/2009, hereinafter 3GPP).and further in view of BORDER (US 2002/0016851 A1).

Regarding claim 50, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of PANCHAL, JANG,

and 3GPP does not expressly disclose wherein a length of the header is variable according to a length of the channel identifier. BORDER discloses wherein a length of a header is variable according to a length of an identifier (abstract; paragraph 141, 144; header is sizable based on payload size). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of PANCHAL, JANG, and 3GPP to include the teachings of BORDER, since such a modification would allow unallocated bits to be used based on a determination of the remaining bits needed.

Regarding claim 51, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of PANCHAL, JANG, 3GPP, and BORDER does not expressly disclose wherein, if the predetermined portion of the channel identifier is less than n bits, where n<7, the header has a length of 10-n bits. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a header based on a variable, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

6. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 04/27/2009 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARIEL BALAOING whose telephone number is (571)272-7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V. Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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